

FIG. 1

complementSoft ASAP  
Architecture Overview

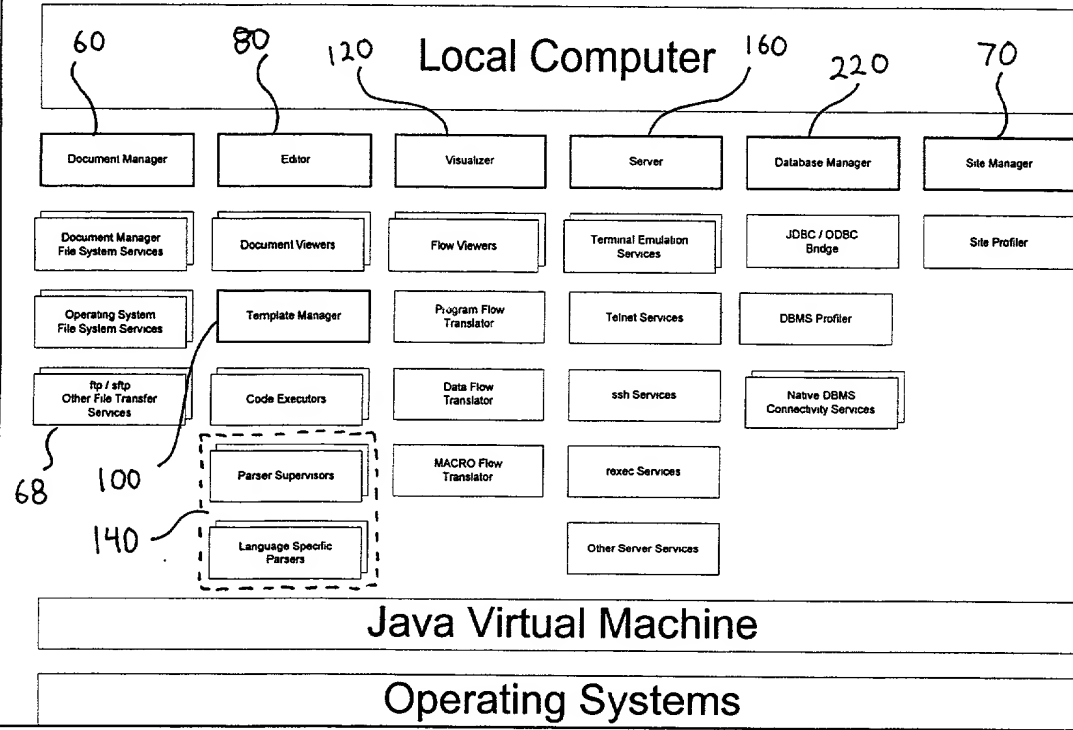


FIG. 2

2014032560

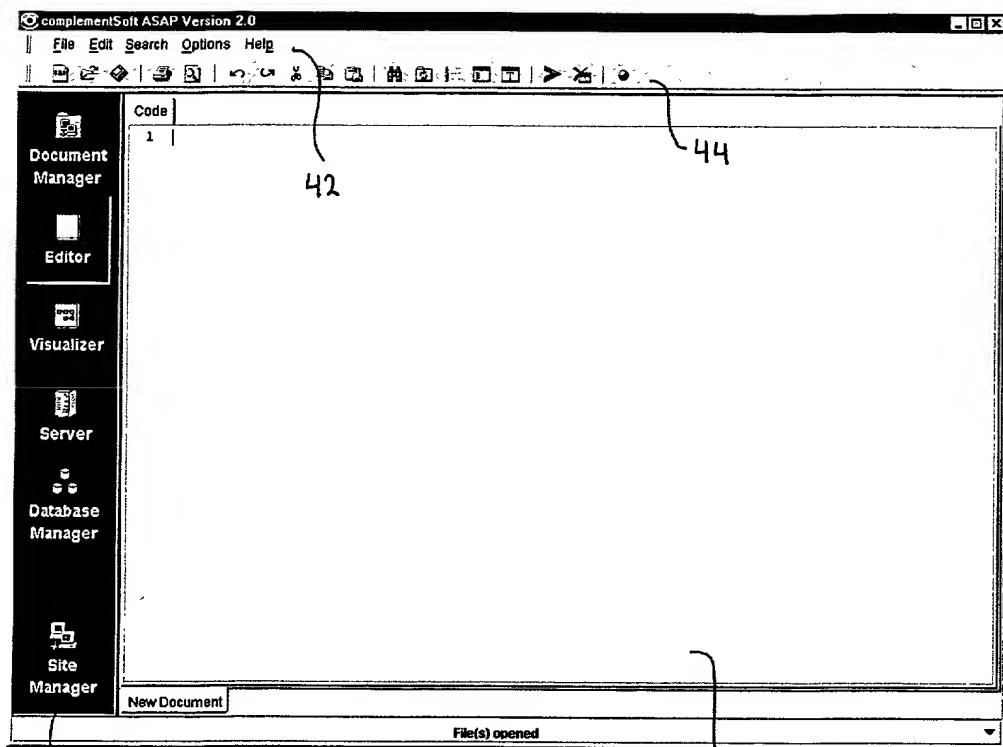
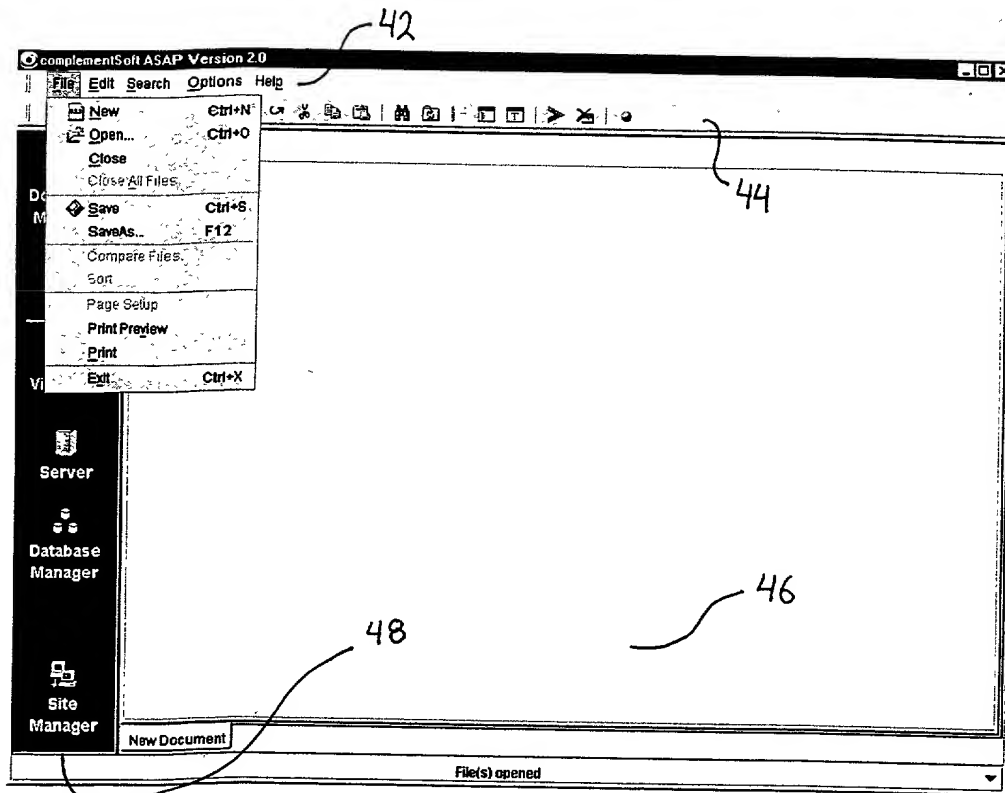
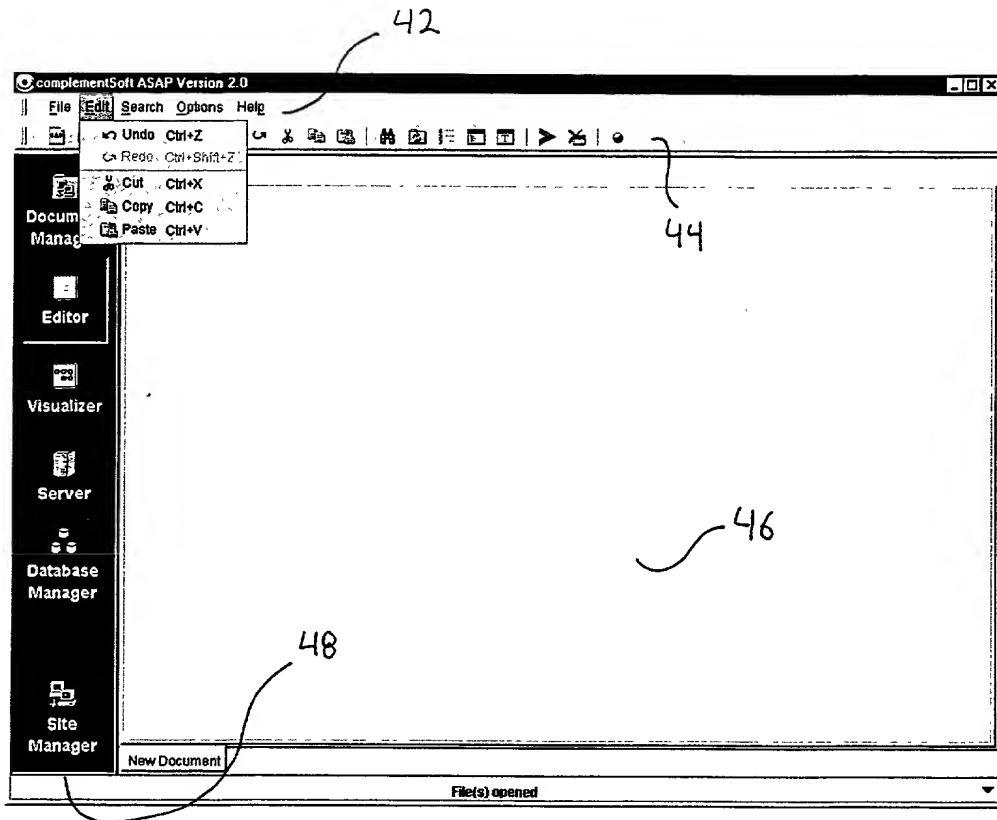


FIG. 3



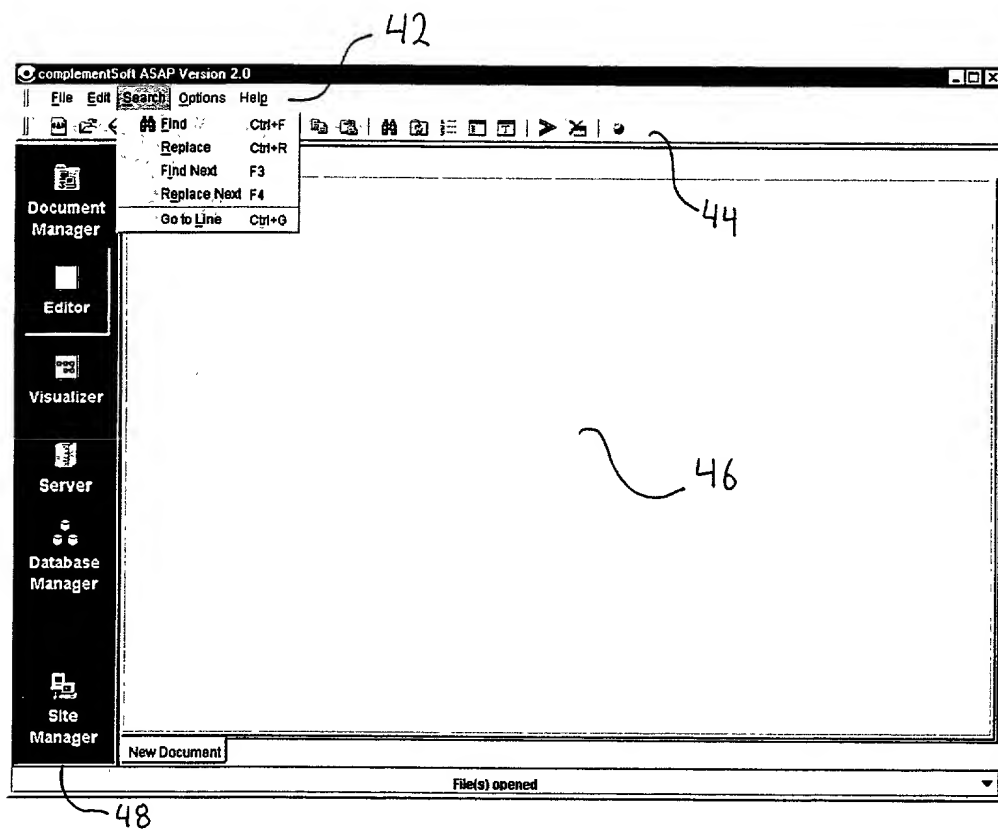
Menu Item	Functionality
New	Create a new document ( a program )
Open	Open an existing document
Close	Close the currently opened document
Save	Save the currently open document
Save As	Save the currently open document using a different name or in a different location
Print Preview	Print Preview of the currently open (active) document
Print	Print the currently open (active) document
Exit	Exit the application

FIG. 4a



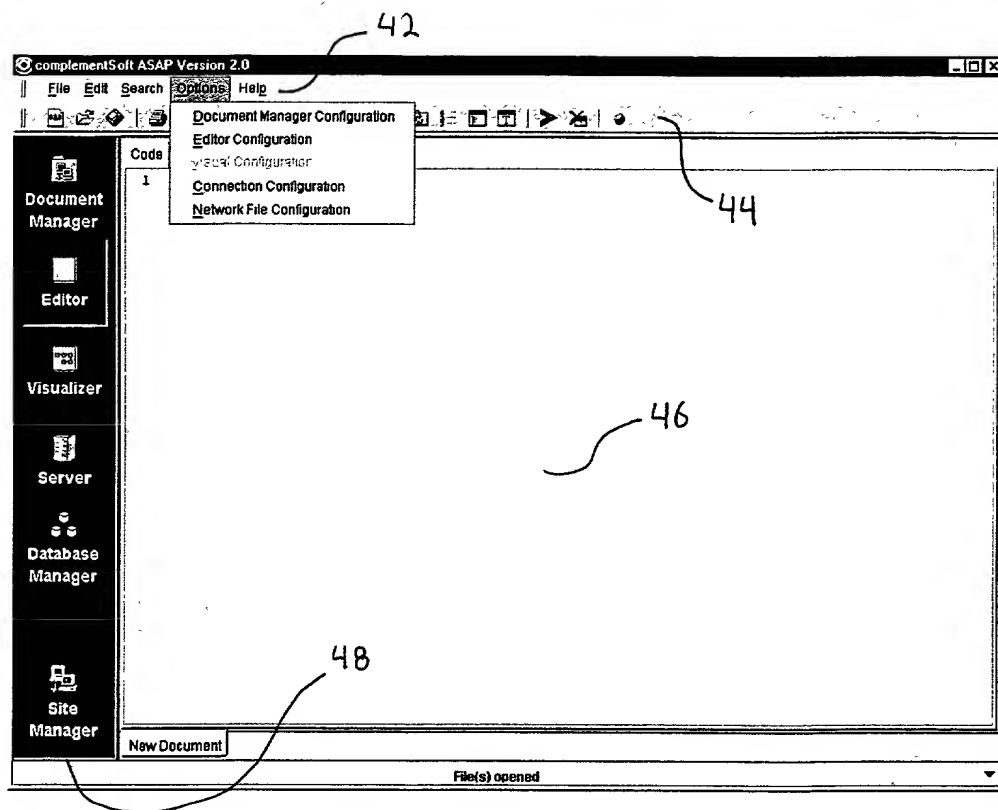
Menu Item	Functionality
Undo	
Redo	
Cut	
Copy	
Paste	

201404290650



Menu Item	Functionality
Find	
Replace	
Find Next	
Replace Next	
Goto Line	Go to the n line in the currently active document

FIG. 4c



Menu Item	Functionality
Document Manager Configuration	Activate the Document Manager Configurator
Editor Configuration	Activate the Editor Configurator
Visual Configuration	Activate the Visual Configurator
Connection Configuration	Activate the Connection Configurator
Network File Configuration	Activate the Network File Configurator

FIG. 4d

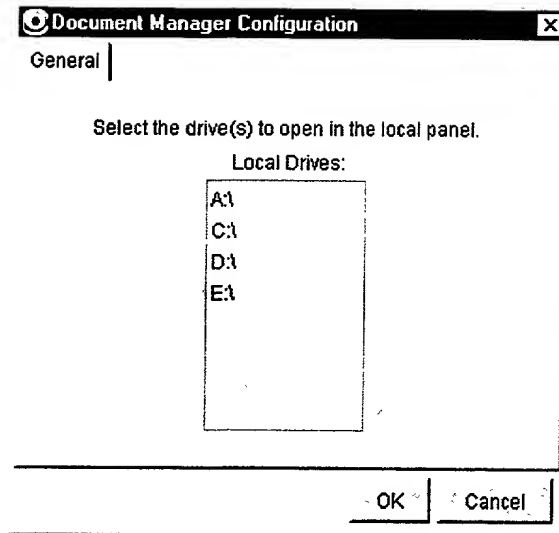


Figure 4da



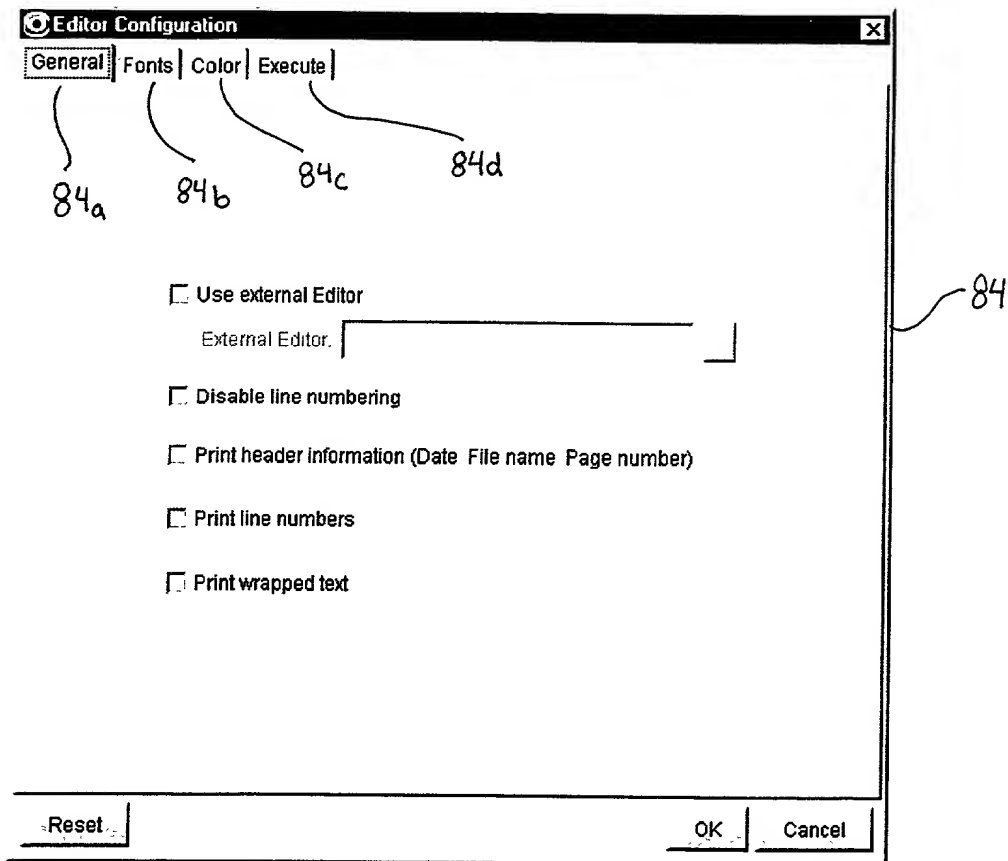


Figure 4db

Site Manager Configuration

Connection

☒ No proxies    ☐ Firewall with no proxies  
☐ Use proxies    ☐ No network detection

☐ Enable HTTP proxy

HTTP Proxy

Server Name  Server Port

☐ Enable SOCKS proxy

SOCKS Proxy

Server Name  Server Port

☒ Ver 4    ☐ Authentication    User Name:   
☐ Ver 5    Password:

Test    OK    Cancel    Apply

Fig 4dc

**Network File Configuration**

☐ Enable Network File location for Site Manager

Path:

☐ Enable Network File location for Message Manager

Path:

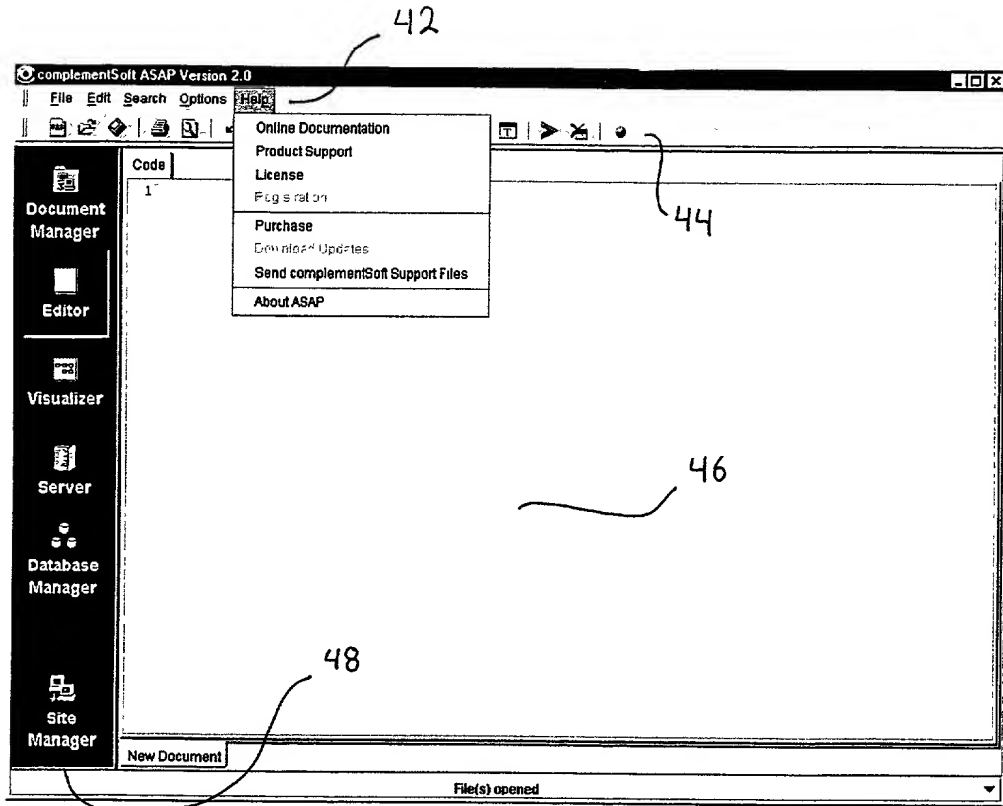
Precedence: ☒ Local file ☐ Network file

☐ Enable Network File location for Templates

Path:

OK Cancel

Fig 4dd



Menu Item	Functionality
On-line Documentation	Show On-line Documentation
Product Support	Displays the Product Support Page with e-mail address, How to . . . and Frequently Asked Questions
License	Detailed license information with the ability to renew and/or upgrade the license
Registration	Perform on-line product registration
Purchase	Displays the complementSoft e-store
Download Updates	Retrieve Product Updates
Send complementsoft Support files	E-mail support files to complementSoft
About ASAP	Version and copyright information

FIG. 4e

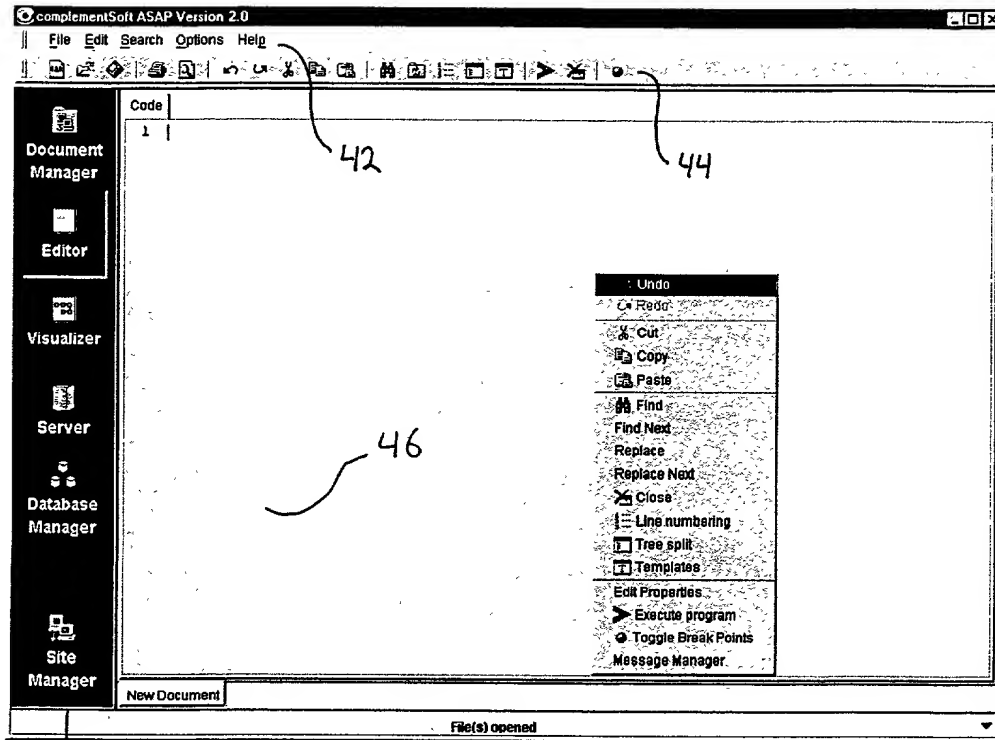


FIG. 4f

Menu Item	Functionality
Undo	
Redo	
Cut	
Copy	
Paste	
Find	
Find Next	
Replace	
Replace Next	
Close	Close the currently active document
Line numbering	Turn line numbering on of off
Tree Split	Activate the Tree View split screen mode
Template Manager	Activate the Template Manager
Edit Properties	Edit the properties (timestamp, originating location, etc.) of the document
Execute Program	<p>Execute the currently active program (i.e., the one that the user is currently editing)</p> <p>The user can further specify the execution mode (i.e., how to execute, with which option turn on/off, etc) and execution location (i.e., where to execute, which server, which execution engine, which location)</p> <p>If the user has previously activated Break-Point execution (see below), then the execution will be carried out based out the break-points, i.e., start at where the user indicate that it should start, end at where the user indicate that it should end and skipping statements as indicated by the user.</p>
Toggle Break Points	<p>Activate / deactivate Break-Point execution.</p> <p>Setup Break-Points if they have not been previously setup.</p> <p>Reset/Remove Break-Points if they have been previously setup</p>
Message Manager	Activate the Message Manager to add, remove, or update the messages in the message repository

FIG. 4f (continued)



Menu Item	Functionality
New	
Open	
Save	
Print	
Print Preview	
Undo	
Redo	
Cut	
Copy	
Paste	
Find	Find a word
Refresh	Refresh the Editor display
Toggle Line Numbers	Show or hide line numbers
Toggle Tree View	Enable or disable Tree View
Template Manager	Activate the Template manager
Execute Program	Execute the currently active program
Close	Close the currently active program
Toggle Break Point Execution	Enable of disable Break Point Execution

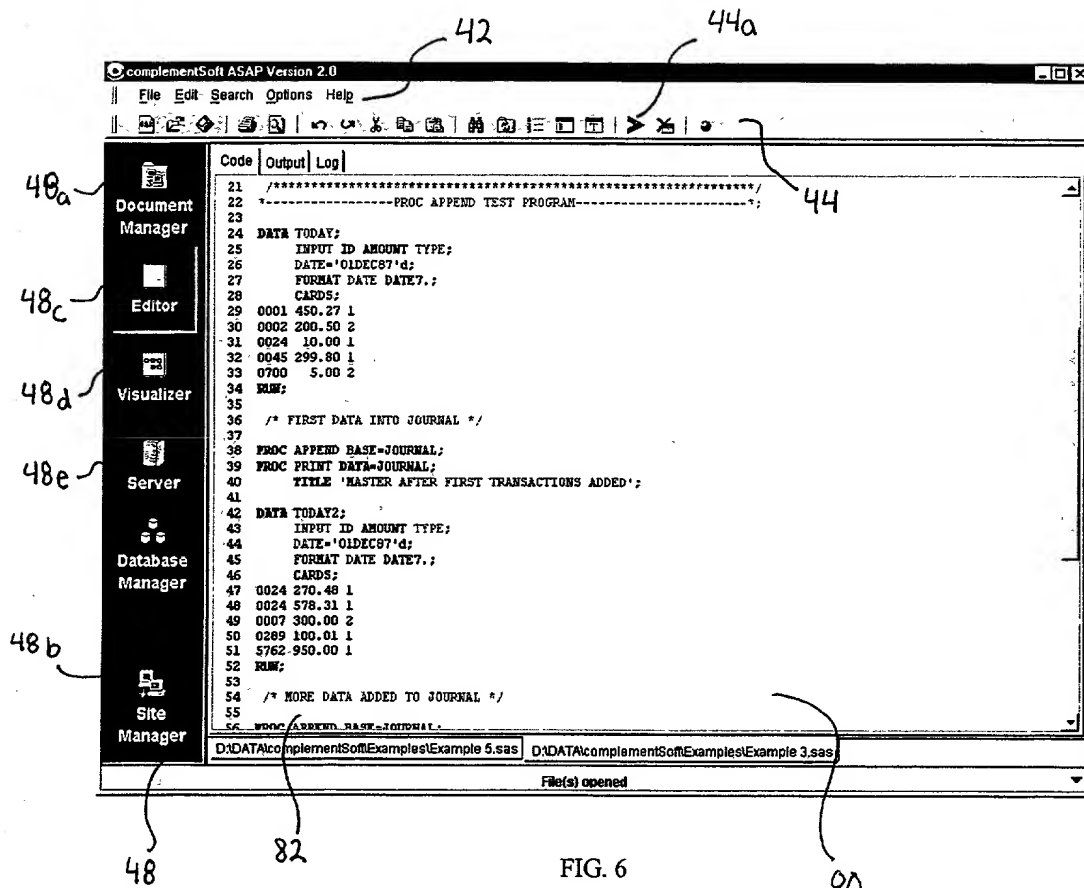


FIG. 6



complementSoft ASAP Version 2.0

File Edit Search Options Help

Document Manager

Editor

Visualizer

Server

Database Manager

Site Manager

Code Output Log

D:\DATA\complementSoft\Examples\Example 3.sas

21 \*\*\*\*\*;  
 22 -----PROC APPEND TEST PROGRAM-----;  
 23  
 24 DATA TODAY;  
 25 INPUT ID AMOUNT TYPE;  
 26 DATE='01DEC87'd;  
 27 FORMAT DATE DATE7.;  
 28 CARDS;  
 29 0001 450.27 1  
 30 0002 200.50 2  
 31 0024 10.00 1  
 32 0045 299.80 1  
 33 0700 5.00 2  
 34 RUN;  
 35  
 36 /\* FIRST DATA INTO JOURNAL \*/  
 37  
 38 PROC APPEND BASE=JOURNAL;  
 39 PROC PRINT DATA=JOURNAL;  
 40 TITLE 'MASTER AFTER FIRST TRANSACTIONS ADDED';  
 41  
 42 DATA TODAY2;  
 43 INPUT ID AMOUNT TYPE;  
 44 DATE='01DEC87'd;  
 45 FORMAT DATE DATE7.;  
 46 CARDS;  
 47 0024 270.48 1  
 48 0024 578.31 1  
 49 0007 300.00 2  
 50 0289 100.01 1  
 51 5762 950.00 1  
 52 RUN;  
 53  
 54 /\* MORE DATA ADDED TO JOURNAL \*/  
 55  
 56 PROC APPEND BASE=JOURNAL;

42

44

92

D:\DATA\complementSoft\Examples\Example 3.sas

D:\DATA\complementSoft\Examples\Example 3.sas

File(s) opened

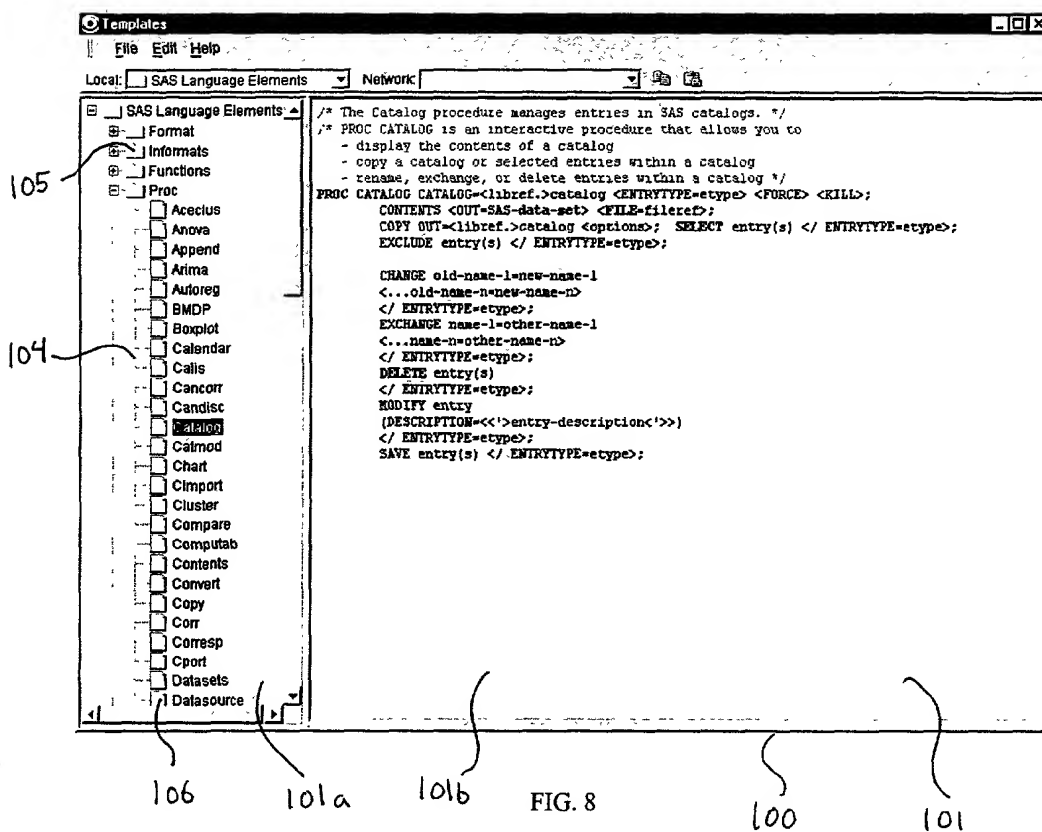
48

82a

80

826

2017-12-26 14:04:04



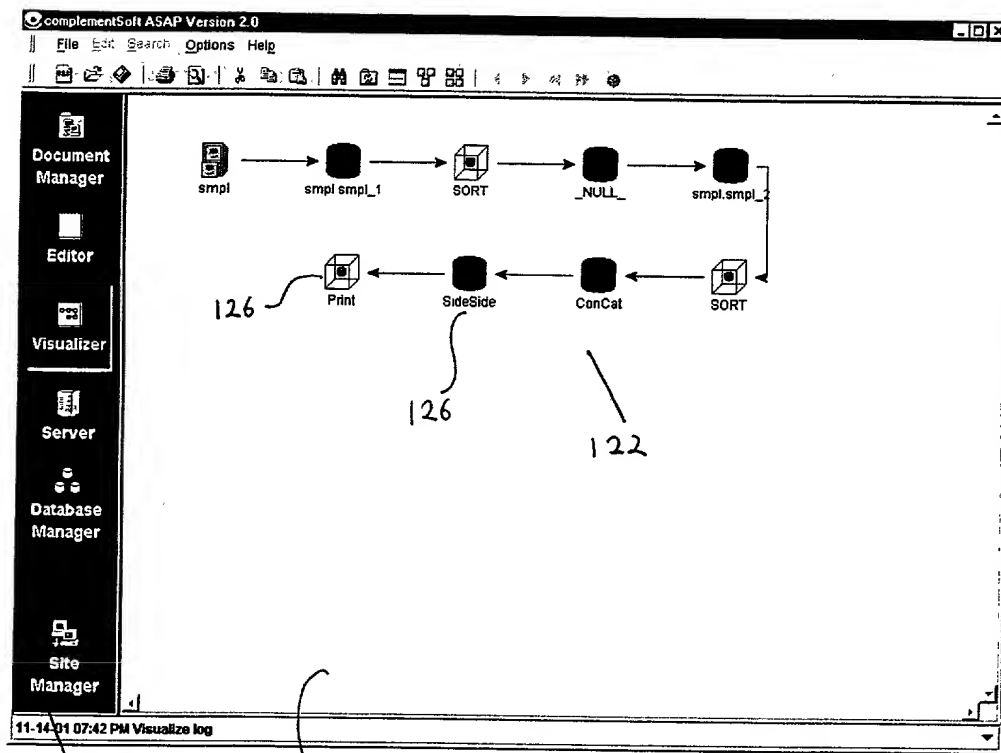
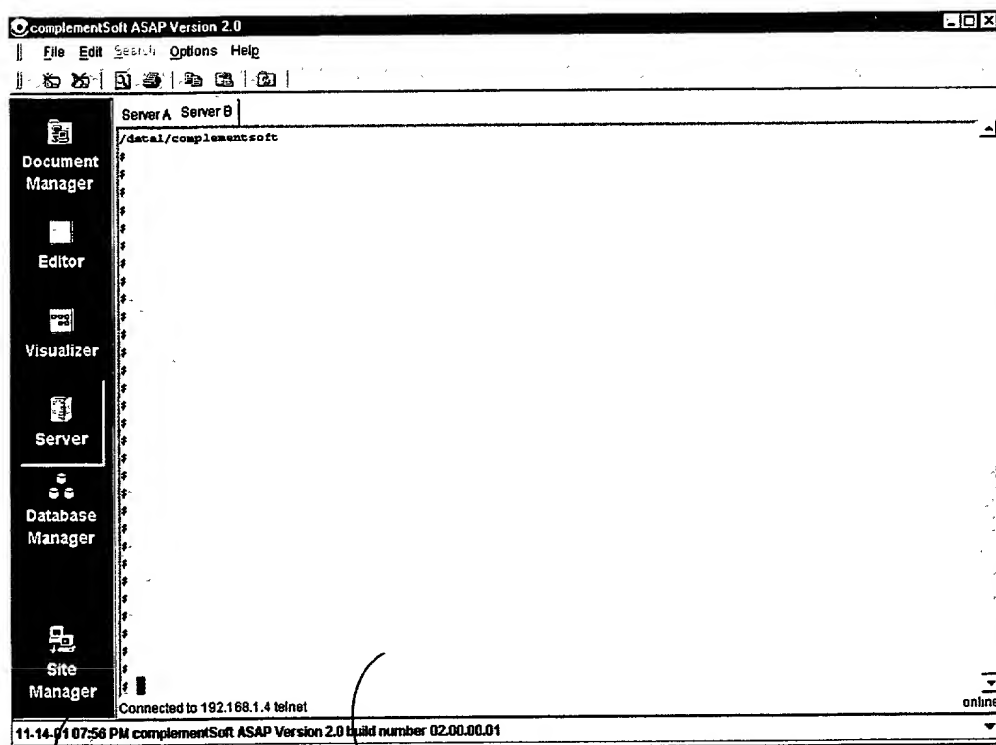


FIG. 9

2017-04-26 14:26:56



48

162

FIG. 10

160



2025-10-10 14:29:56

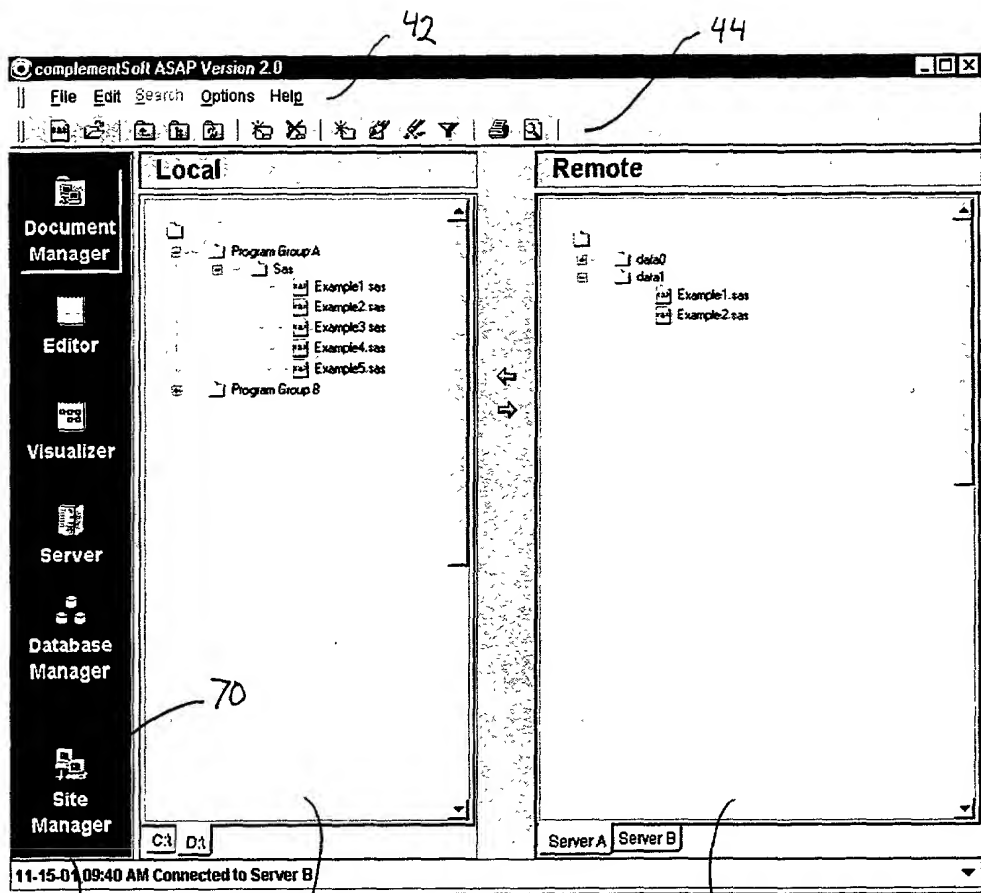


FIG. 12

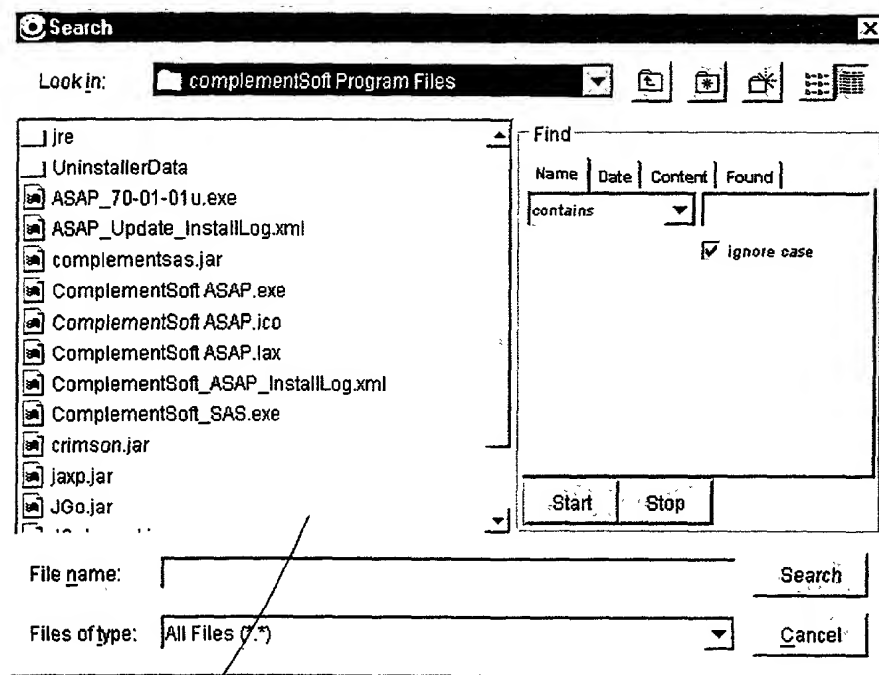


FIG. 13

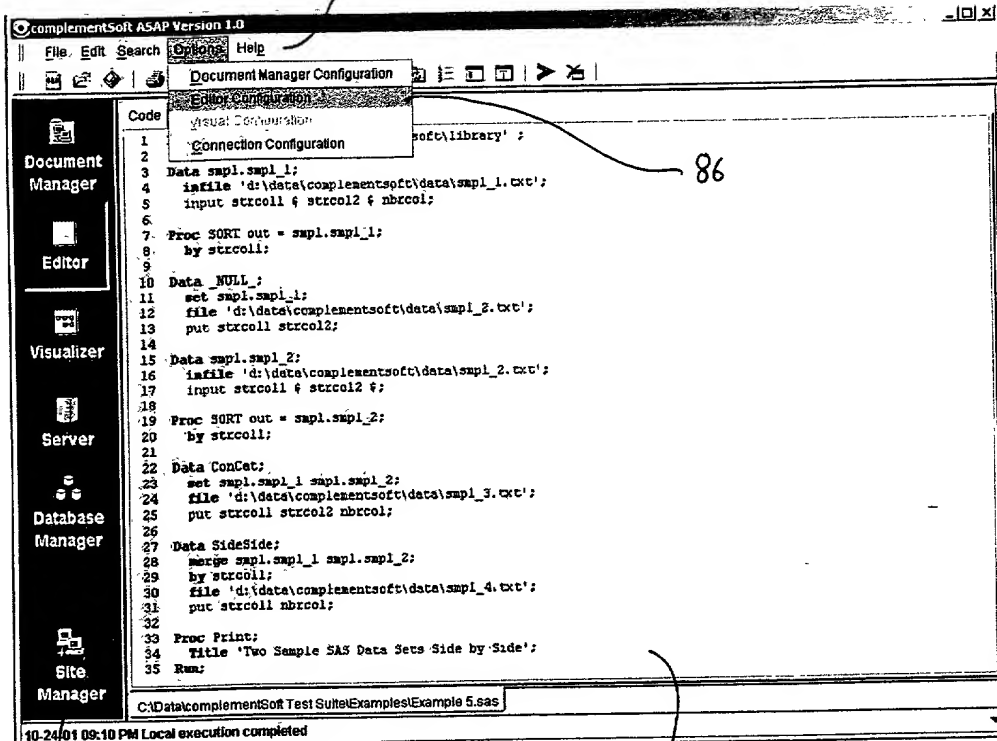


FIG. 14a



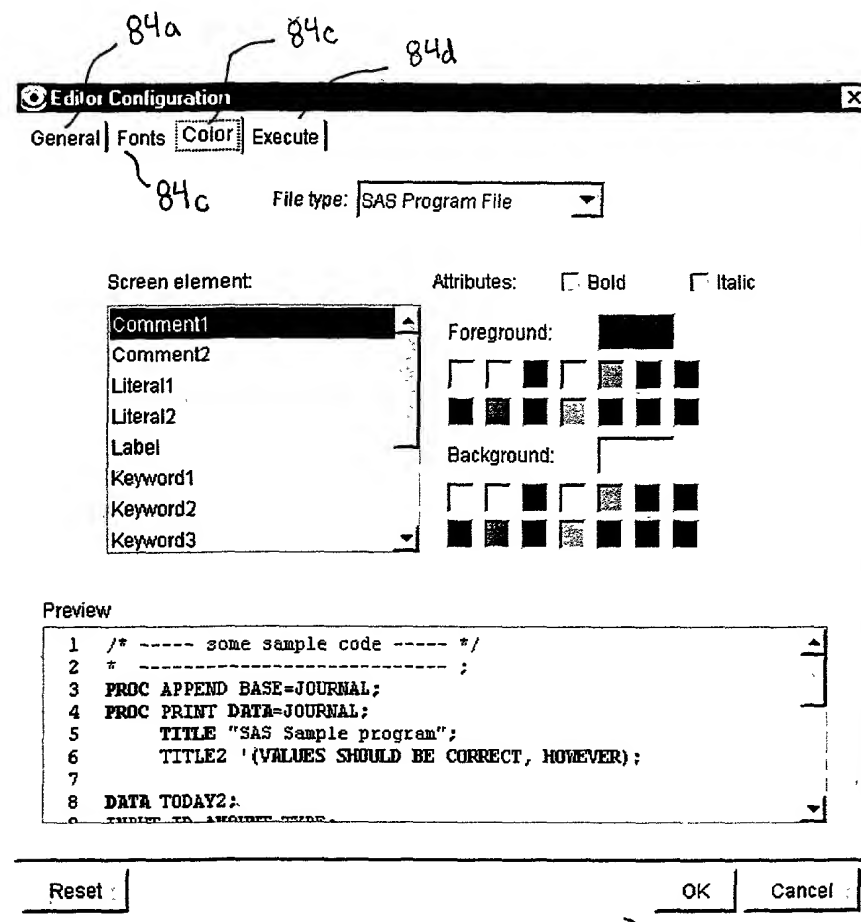


FIG. 14b

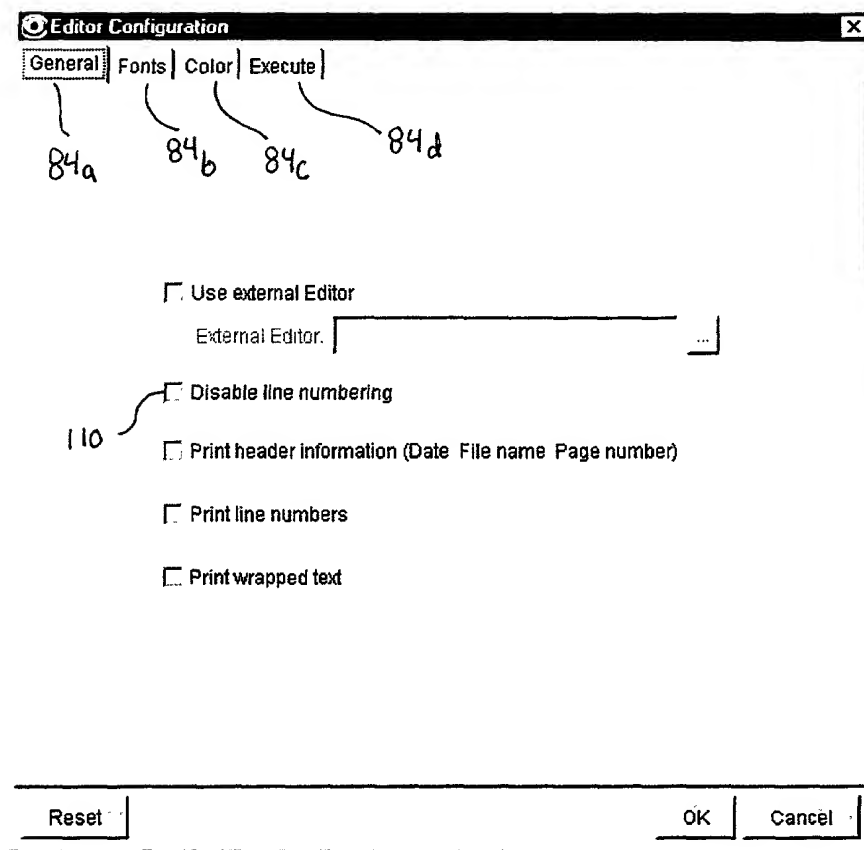


FIG. 14c

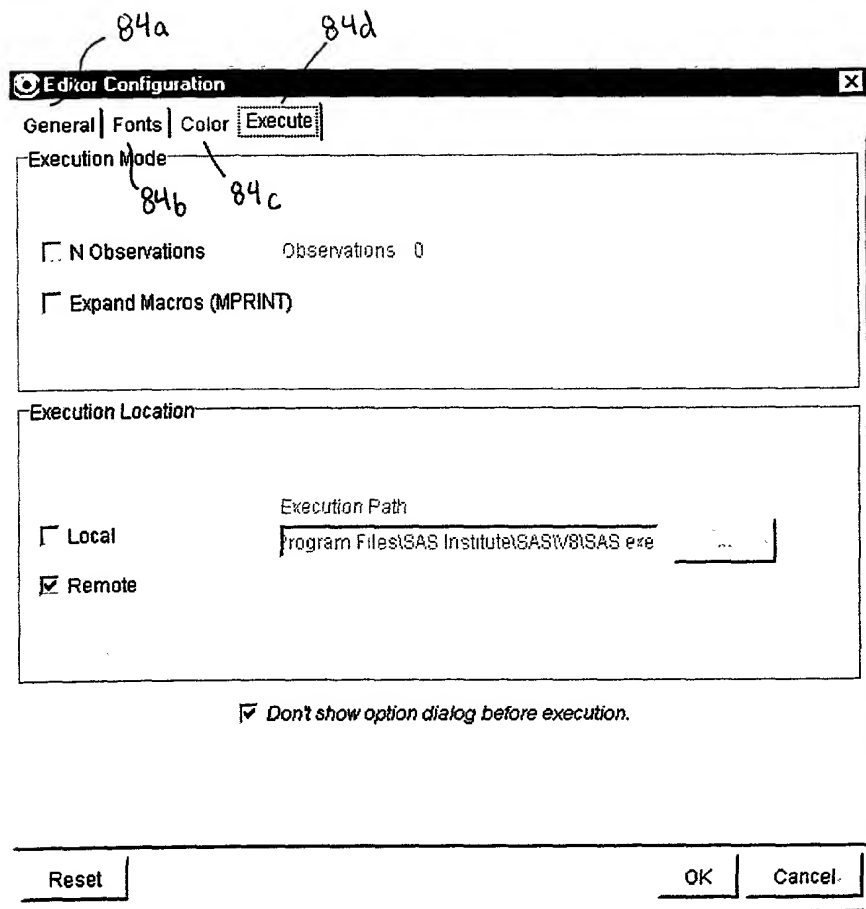


FIG. 14d

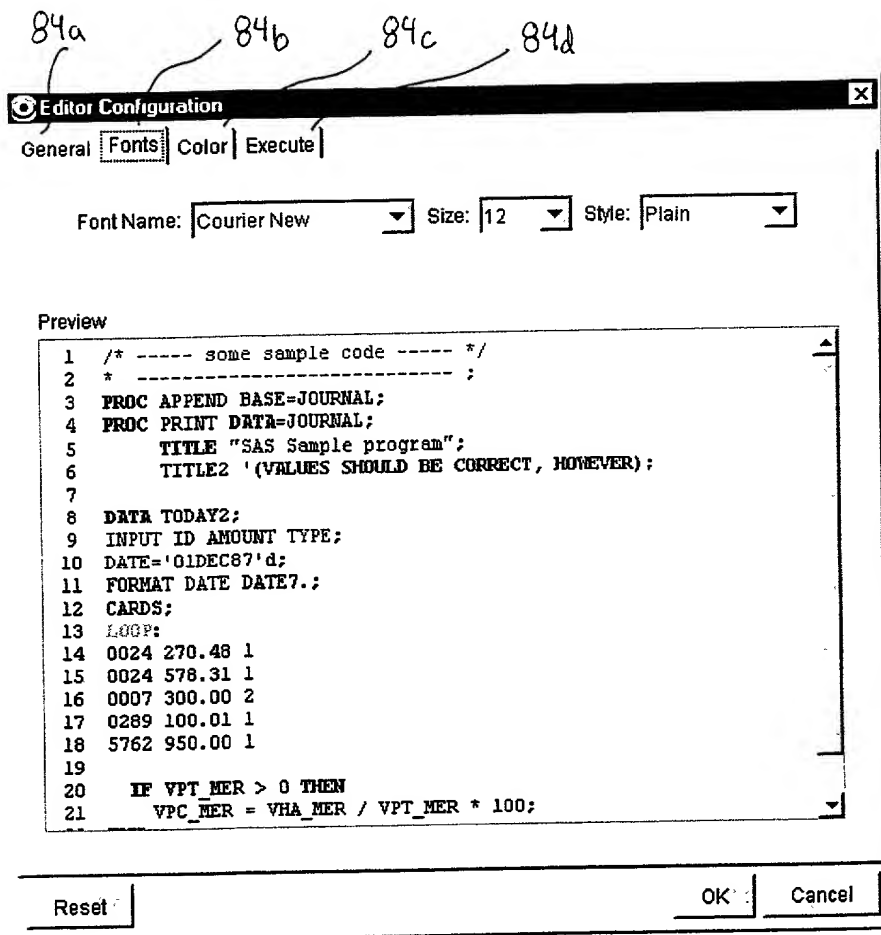


Fig 14 e

100

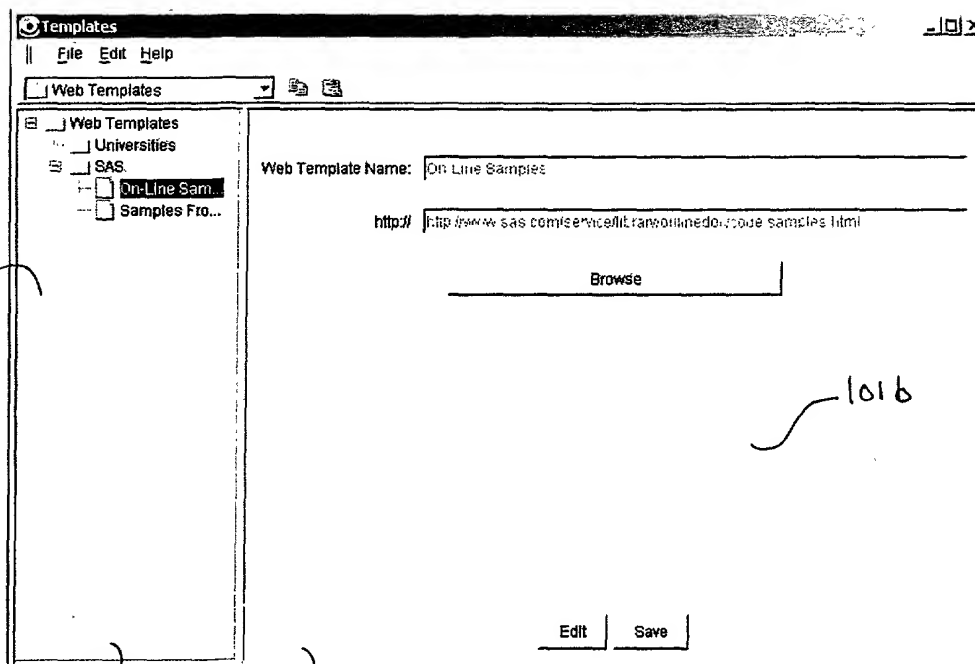


FIG. 16

2011.04.12 09:00

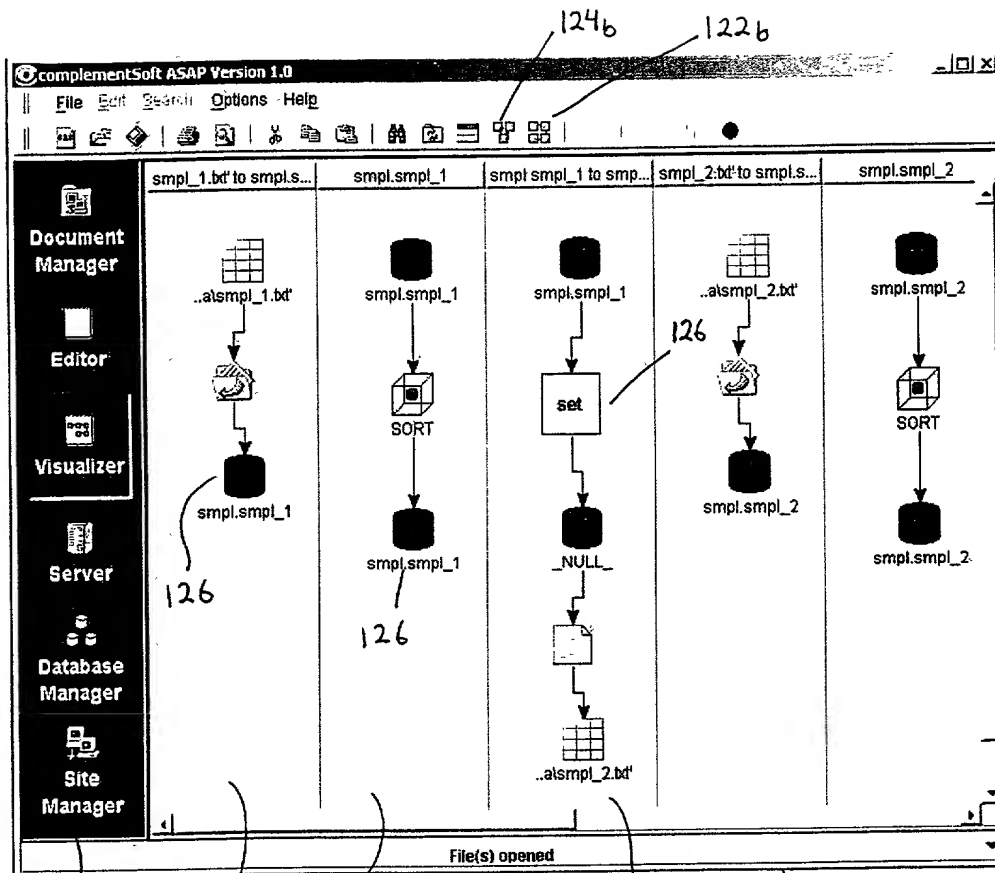


FIG. 17

48

121

124

124a

120

48

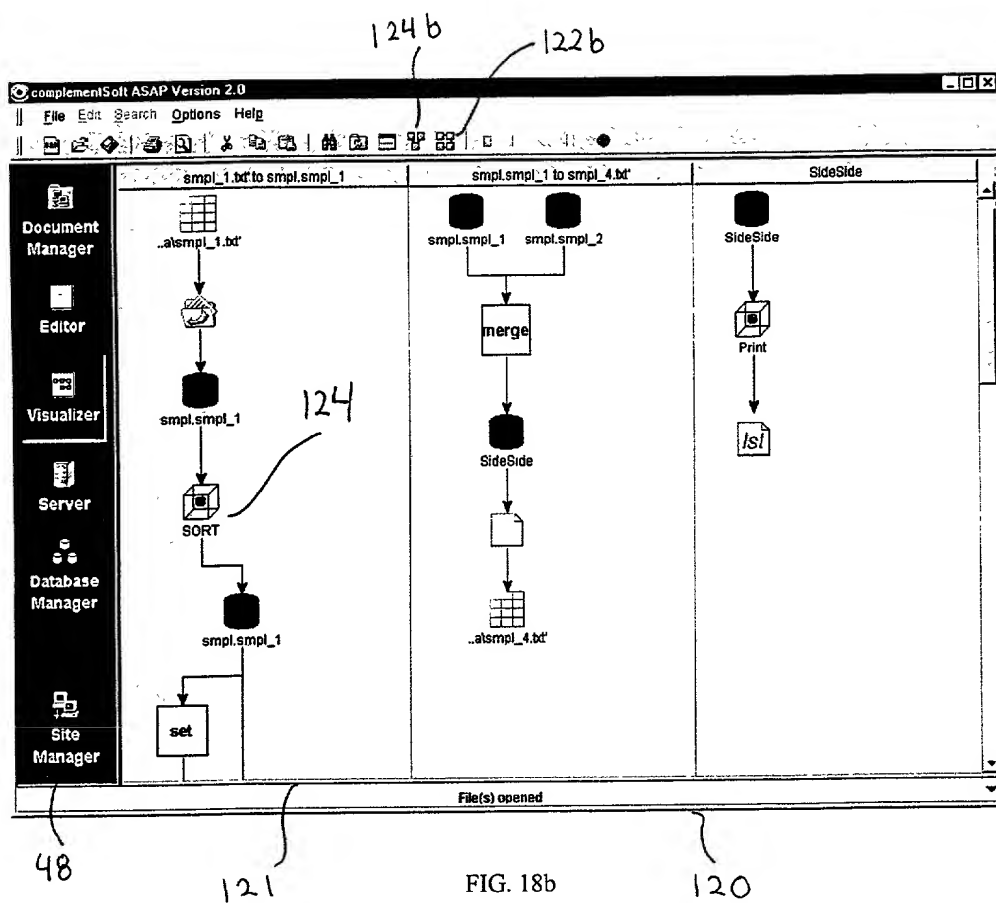
121

124

120



20110426660



complementSoft ASAP Version 2.0

File Edit Search Options Help

Document Manager

Editor

Visualizer

Server

Database Manager

Site Manager

smpl\_1.bdt to SideSide

124b

124a

124

smpl\_2

sol

merge

ConCat

SideSide

Print

..a1smpl\_3.bdt

..a1smpl\_4.bdt

!st

File(s) opened

48

121

(20)

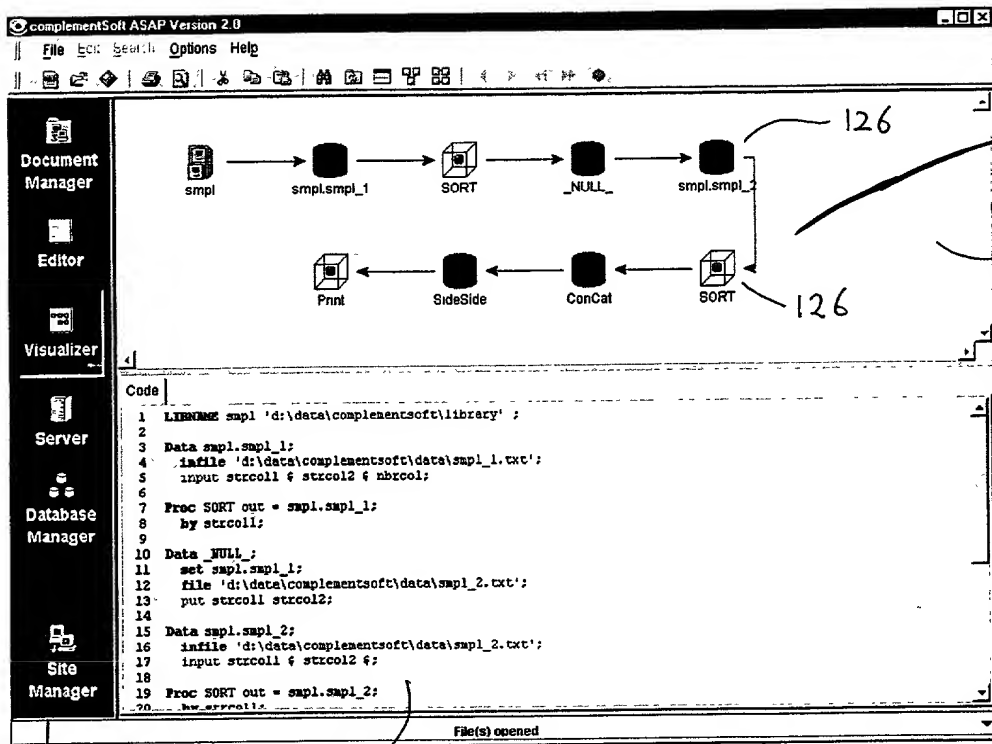


FIG. 19

Elements appear in red when they contain problematic code.

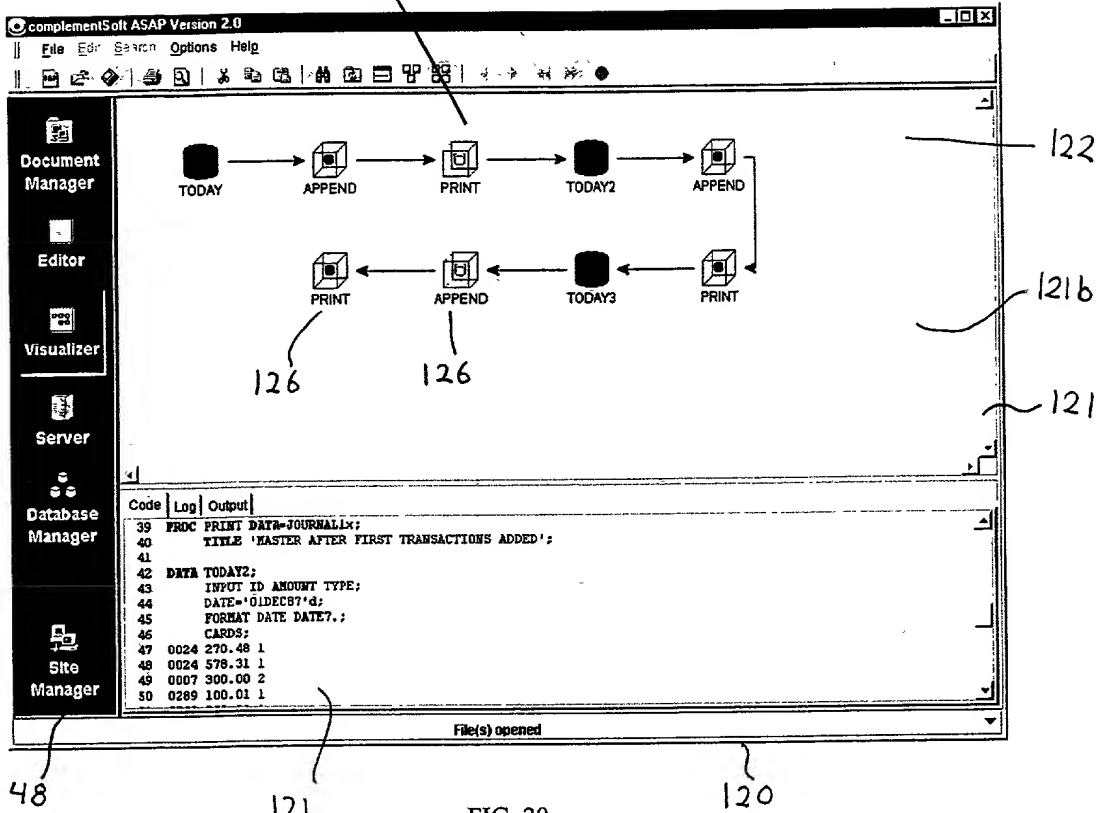


FIG. 20

```
Code & Log
39 PROC PRINT DATA=JOURNALIX;
40     TITLE 'MASTER AFTER FIRST TRANSACTIONS ADDED';
41
42 DATA TODAY2;
43     INPUT ID AMOUNT TYPE;
44     DATE='01DEC87'd;
45     FORMAT DATE DATE7.;
46     CARDS;
47 0024 270.48 1
48 0024 578.31 1
49 .....

38 PROC APPEND BASE=JOURNAL;

NOTE: Appending WORK.TODAY to WORK.JOURNAL.
NOTE: BASE data set does not exist. DATA file is being copied to BASE file.
      The SAS System                                08:22 Friday,
      □2

NOTE: There were 5 observations read from the dataset WORK.TODAY.
NOTE: The data set WORK.JOURNAL has 5 observations and 4 variables.
NOTE: PROCEDURE APPEND used:
      real time                2.14 seconds

39 PROC PRINT DATA=JOURNALIX;
ERROR: File WORK.JOURNALIX.DATA does not exist.
41
```

FIG. 20a

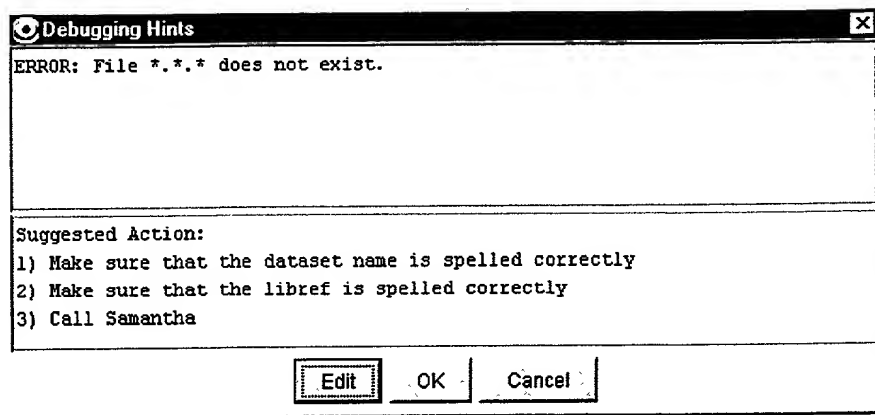


FIG. 20b

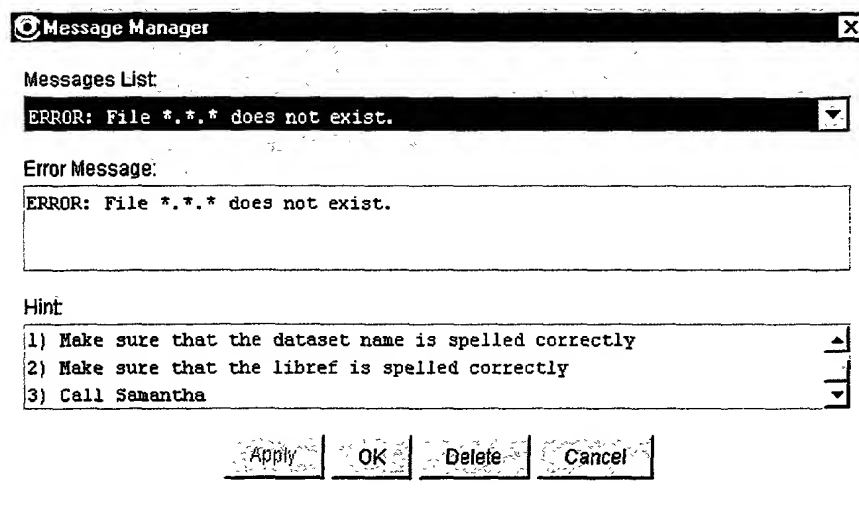


FIG. 20c

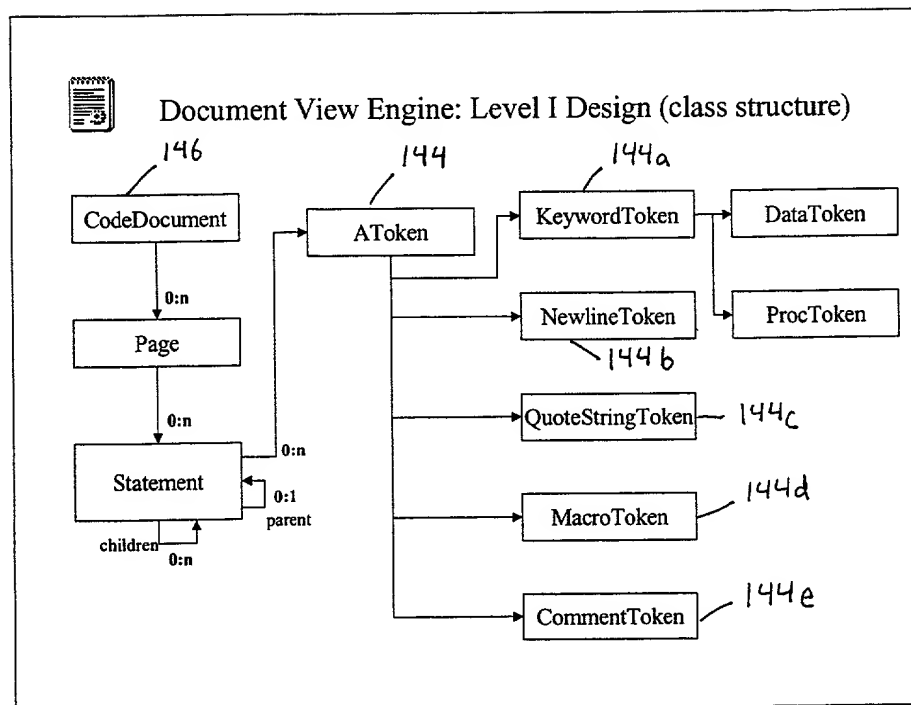


FIG. 21





# Document View Engine: Level I Design (class structure)

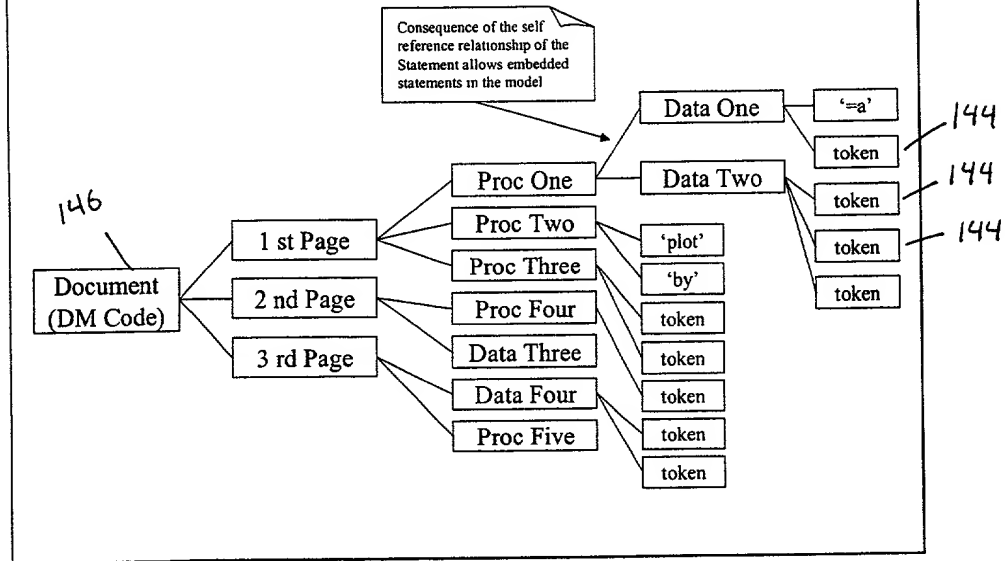


FIG. 22

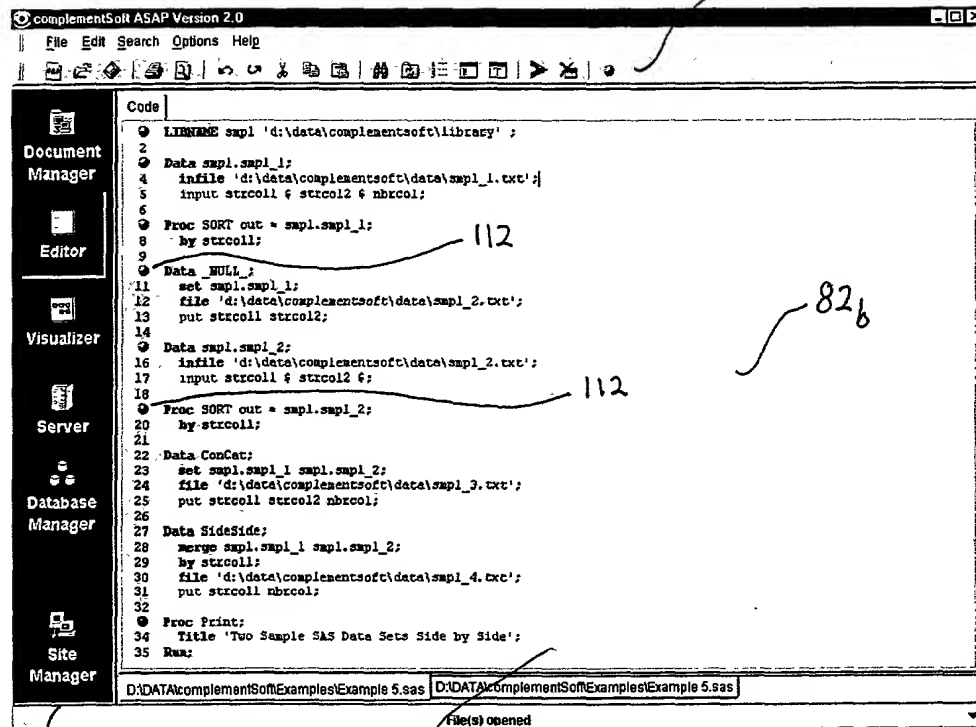


FIG. 23